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WHEN YOU BUY YOUR AUTOMATIC REFRIGERATOR

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Your automatic refrigerator will probably cost between $125 and $300. It should last ten or more years. Therefore, you should consider carefully and compare the structural and convenient features of several refrigerators before you make your purchase.

Differences between makes and models readily show up, if you will make an effort to find them. Knowledge of what to look for and some shopping around are well worth your time and effort. Money will be saved and other satisfactions may result from your purchase. Among the most important things to consider are type of operation, amount and kind of food storage space, over-all construction, insulation, surface finishes, ease of cleaning, and shelf and space flexibility.

What Size Shall My Refrigerator Be?—In deciding on the cubic foot capacity of your refrigerator, you will want to consider (1) size of your family, (2) special food storage needs of individual family members, such as babies and invalids, (3) your food buying practices, (4) refrigeration needs for home-produced and home-prepared foods, and (5) amount of storage space needed for frozen foods, either purchased or from community locker plant.

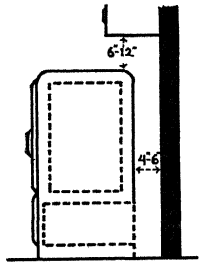

Fig. 1

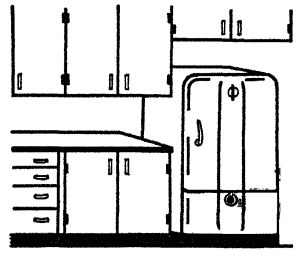
Fig. 2

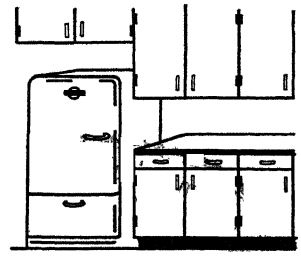
Fig. 3

For the average family, the 7-cubic-foot box is *minimum*. Over-all dimensions of newer refrigerators may be larger than those of a few years

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ago. Check the refrigerator measurements carefully to see if it will fit into the space where you have planned to use it. For economical operation, allow 6 to 12 inches of space above and from 4 to 6 inches at the back of refrigerator, as indicated in Fig. 1. At least 3 inches of space on each side of the refrigerator is advisable. Avoid placing the refrigerator next to stove, heater, radiator, or in the sunshine.

Type of Operation, i.e., Fuel Used.—The type of operation is determined by the kind of fuel used to move the refrigerant through the system. The choice of a kerosene, gas, or an electrically operated refrigerator depends to some extent on the availability of these utilities in your community. Gas refrigerators are made to operate with natural or "bottled" gas.

Location of the Evaporator.—The location and size of evaporator (freezer compartment) may help you decide on model of refrigerator to choose. See Fig. 4. This shows an evaporator in the center in *a*, at left in *b*, at right in *c*, across the top in *d*, and across the bottom in *e*. Normal food storage space

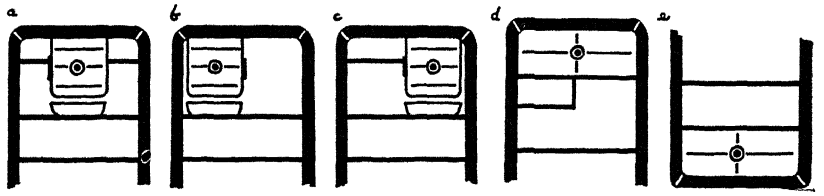

Fig. 4

may be sacrificed in order to make more space available for freezing and storage of frozen foods. Make your decision on your most basic needs. If one or more of the shelves in a small evaporator is removable, greater convenience in freezing and keeping frozen foods is possible. Check to see if the ice-cube trays release the cubes easily.

Frost Collection and Food Drying Problem.—If moisture-laden air comes in contact with the surfaces of the evaporator, it collects there in the form of frost. Moisture is in the air that enters the refrigerator when the door is opened. Moisture also comes from the evaporation of liquids and the drying of moist foods stored in the refrigerator. If the gasket around the door is easy to remove, it is more likely that it will be replaced when it becomes worn. The cheapest way to prevent food from drying and to lessen frost accumulation is to cover liquids and moist foods and open the refrigerator door as few times as possible.

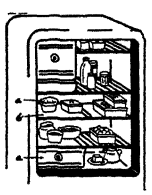

Fig. 5

However, manufacturers have devised several ways to help lessen food evaporation and frost accumulation. See Fig. 5. Among these methods are:

(1) The use of covered containers, *a*, or covered drawers, which come as separate or built-in features, of the refrigerator.

(2) The use of solid glass or plastic shelves, *b*, which separate the evaporator from the moisture compartment.

(3) The installation of a section of the refrigerating cooling system in

the walls of the refrigerator, which helps to maintain a more even temperature in the food compartment, thus reducing air circulation and frost accumulation.

(4) The provision of two separate compartments, each with outside door—one for frozen foods (see Fig. 6) and the other for ordinary food storage.

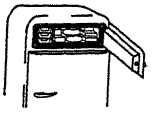

Fig. 6

How is the Defrosting Control Operated?—Thick frost on the evaporator increases operating costs and interferes with food cooling. Then too, freezer trays are hard to remove if frost is thick. Defrosting may be controlled as follows:

(1) *Manual defrosting* requires turning by hand the defrosting control at the beginning and at the end of the defrosting period.

(2) *Semi-automatic defrosting* requires turning the control by hand to start the defrosting cycle but stops it automatically.

(3) *Automatic defrosting* takes place whenever there is a frost accumulation and defrosting is needed. If defrosting is automatic, see that the container for drippings is always in place.

Temperature Control.—The temperature control should be conveniently located and clearly marked to show the various control positions. A large number of temperature settings is unimportant.

Are the Shelves Convenient?—The arrangement of shelves within the box is important to convenience and utility. Shelf area may be increased by having shelves close together. This may be a disadvantage if the shelves are not adjustable. Sliding and divided shelves are a great convenience. They should have some provision at sides and back to prevent containers from sliding off or tipping. A stop should be provided to keep a sliding shelf from pulling all the way out.

Shelves must be rigid and heavy enough to hold considerable weight. Those made of stainless steel or steel plated with chromium are generally satisfactory. Chromium plate sometimes peels but the surface can be replated if desired. The shelf bars should be closely spaced and preferably flat. It would be desirable if the lowest shelf is high enough to be reached without much stooping.

Over-All Construction.—Less moisture will reach the insulation and the cost of operation will be lower where the major part of the framework construction is seamless. Therefore, a single-piece welded steel outside cabinet and a single-piece welded steel interior lining are desirable. See Fig. 7.

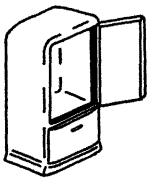

Fig. 7

For economical operation there should be adequate insulation. Ask to see a cut-away section of the refrigerator wall. Materials used most frequently as insulation are rock wool and spun glass. Settling of the insulation material will be at a minimum if it is in blanket form and braced to the walls.

What about Swing of Door?—It is more convenient if the refrigerator door swings away from the adjacent work surface than toward it. See Figs. 2 and 3. The door hinges and latch must be sturdy to keep the door tight against the cabinet. Most hinges loosen in time, and should be easily reached for servicing.

How Are the Surfaces Finished?—Most refrigerators are finished on the outside with synthetic enamel and on the inside with acid resistant porcelain enamel. A refrigerator with an outside finish of porcelain enamel will cost about $20 more than one with a synthetic finish. Under ordinary use, porcelain enamel is more durable and easier to clean than synthetic finishes. However, porcelain enamel will chip if struck or handled carelessly and is almost impossible to repair if once chipped.

A refrigerator with a flat top, smooth surfaces, rounded corners, and little decorative trim is easy to clean.

Will the Condenser Be Easy to Keep Clean?—The condenser needs to be cleaned several times during the year. Therefore, it should be located so that it is within easy reach for cleaning.

What About Special Features?—Special features (see Fig. 8), such as fancy containers, clocks, lights, extra interior compartments, and drawers, are often

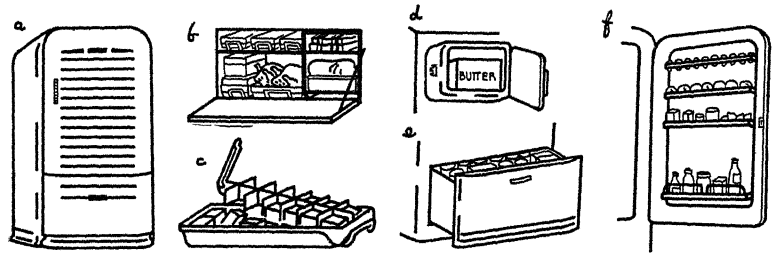

Fig. 8.—Some special features to be found on present models of automatic refrigerators: (*a*), modernistic styling; (*b*), extra large evaporator for freezing and holding frozen foods; (*c*), device to release ice cubes quickly and individually; (*d*), special compartment in which butter and other fats are kept soft; (*e*), extra drawer or bin for storage and, (*f*), shelves on the door.

designed for their sales appeal. A special feature to one buyer might be an essential feature to another buyer. Everything that is a part of a product, costs something, even though it may not have a separate price tag. Sometimes, quality is sacrificed to provide something that "catches the eye." You will have to decide for yourself if any one special feature is worth the price.

Purchase your refrigerator from a reliable dealer whose reputation has been established. Such a dealer handles products that will not be "orphans" at an early date. It is important that the dealer is able to service the appliance properly and get parts readily. Generally, the manufacturer's guarantee is only as good as the local dealer behind it. Refrigerators made by reliable manufacturers are approved by the National Board of Fire Underwriters and bear their seal of approval.